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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,244	07/18/2003	Jose Arno	ATMI-567-DIV	2880

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ATMI, INC.
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EXAMINER	
STEVENSON, ANDRE C	
ART UNIT	PAPER NUMBER
2812	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/623,244	ARNO, JOSE	
	Examiner	Art Unit	
	Andre' C. Stevenson	2812	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30-34,36,37,39 and 41-45* is/are rejected.

7)☒ Claim(s) *35,38 and 40* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

LYNNE A. GURLEY
PRIMARY PATENT EXAMINER
TC 2800, AU 2812

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 30-34, 36, 37, 39, 41-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Lammerink (U.S. Pat 6370950 B1).

Lammerink (U.S. Pat 6370950 B1), for **Claim #30**, a method of operating a semiconductor process including processing of or with a gas **(column 1, line 4 through**

7), said method comprising sensing concentration of a desired component of said gas with a thermopile detector **(column 8, line 10 through 16)**, generating an output **(column 7, line 35 through 48)** from said thermopile detector indicative of concentration of said selected component of said gas, and controlling one or more conditions in and/or affecting the semiconductor process, in response to said output, **(column 7, line 43 through 48)**.

With respect to **Claim #31**, the method of claim 30, wherein the one or more conditions in and/or affecting the process include flow rate of a chemical reagent to a semiconductor process tool, is taught by Lammerink (U.S. Pat 6370950 B1), (Abstract, column 8, line 19 through 23).

Furthermore, **Claims #32,** the method of claim 30, wherein the one or more conditions in and/or affecting the process include flow rate of a gas stream discharged from or flowed to a process unit in the semiconductor process, is taught by Lammerink (U.S. Pat 6370950 B1), (column 8, line 19 through 23).

Considering now **Claim #33**, the method of claim 32, wherein the gas stream to a semiconductor process tool is monitored, is taught by Lammerink (U.S. Pat 6370950 B1), (column 8, line 19 through 23).

With respect to **Claim #34**, the method of claim 32, wherein the gas stream flowed to an abatement unit is monitored, is taught by Lammerink (U.S. Pat 6370950 B1), (column 8, line 19 through 23).

Considering now **Claim #36**, the method of claim 30, wherein the thermopile sensor output is employed to modulate a value is taught by Lammerink (U.S. Pat 6370950 B1), (column 9, line 25 through 41).

With respect to **Claim #37,** the method of claim 30, wherein the thermopile detector output is employed to modulate a set point of mass flow controller, is taught by Lammerink (U.S. Pat 6370950 B1), (column 8, line 19 through 24).

Furthermore, **Claim #39,** the method of claim 30, wherein the thermopile detector output is employed to terminate a first process step and initiate a second process step, is taught by Lammerink (U.S. Pat 6370950 B1), (column 9, line 25 through 41, column 8, line 19 through 24).

Considering now **Claim #41**, a method of operating a semiconductor process including processing of or with a material **(column 1, line 4 through** 7), said method comprising sensing concentration of a desired component of said material with a thermopile detector **(column 8, line 10 through 16)**, generating a output form **(column 7,**

line 35 through 48) said thermopile indicative of concentration of said selected component of said material and controlling one or more conditions in and/or affecting the semiconductor process, in response to said output is taught by Lammerink (U.S. Pat 6370950 B1), **(column 7, line 43 through 48)**.

With respect to **Claim #42,** the method of claim 41, wherein the material comprises a solid, is taught by Lammerink (U.S. Pat 6370950 B1), (column 7, line 49 through 59, column 8, line 56 through 64).

Furthermore, **Claim #43,** the method of claim 41, wherein the material comprises a fluid, is taught by Lammerink (U.S. Pat 6370950 B1), (column 1, line 4 through 7).

Considering now **Claim #44**, the method of claim 41, wherein the material comprises a liquid, is taught by Lammerink (U.S. Pat 6370950 B1), (column 1, line 4 through 7).

With respect to **Claim #45,** the method of claim 41, wherein the material comprises a gas, is taught by Lammerink (U.S. Pat 6370950 B1), (column 1, line 4 through 7).

Objected Clams

Claims 35, 38 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 35

- ✓ Wherein the gas stream discharged by an abatement unit is monitored.

Claim 38

- ✓ Scrubbing medium in an abatement treatment step of the process..

Claim 40

- ✓ Modulate recycle of a fluid stream in the process.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866 – 217 – 9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre C. Stevenson whose telephone number is (571) 272 1683. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling, can be reached on (571) 272 1679. The fax phone number for the organization where this application or proceeding is assigned is (703) 308 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 1782. Also, the proceeding numbers can be used to fax information through the Right Fax system;

- **703 872 9306**

Andre C. Stevenson

Art Unit 2812

01/07/05

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